

ABSTRACT**OPTICAL POWER TRANSIENT MONITOR**

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A method for detecting power transients in a signal wavelength carried by an optical transmission medium in a band consisting of a first plurality of wavebands, such as a wavelength division multiplexed signal, comprises dividing the band into a second plurality of wavebands, equal to or less than the first plurality, and detecting power transients within each of the second plurality of wavebands. The power of each wavelength in the second plurality of wavebands is determined by detecting the power level in each second plurality of wavebands as a function of the contribution from each of the wavebands in the second plurality of wavebands to derive a plurality of simultaneous equations, equal in number to the second plurality of wavebands, and solving the plurality of simultaneous equations to determine the levels of each wavelength component of each waveband in the second plurality of wavebands. Correlation with error bursts detected in the optical receiver enable an audit of the error event to be conducted.

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[FIG 6]